

REMARKS/ARGUMENTS

Claims 1-33 are pending in the application and stand rejected.

Claim 17 is objected to based on minor informalities.

Claims 1, 17, and 33 are rejected under 35 USC 112 as being indefinite.

Claims 1-4, 17-20, and 33 are provisionally rejected on the ground of non-statutory obviousness-type double patenting over claims 1, 2, 4-6, 19, 20, 22-24, 35, 36, 39, and 40 of co-pending United States Patent Application No. 10/642,042 in view of the United States Patent No. 7,289,441 to Barach.

Claims 1, 17, and 33 are rejected under 35 U.S.C. 103 as being unpatentable over Barach in view of United States Patent 6,977,894 to Achilles et al. (hereinafter "Achilles").

Claims 1, 3-4, 13-15, 17, 19-20, 29-31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent No. 6,577,596 to Olsson in view of Barach.

Claims 2 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsson in view of Barach, and further in view of United States Patent No. 6,700,895 to Kroll.

Claims 5 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsson in view of Barach and further in view of United States Patent 5,859,846 to Kim.

Claims 6, 8, 9, 22, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsson in view of Barach, and further in view of United States Patent No. 6,092,115 to Choudhury.

Claims 10-12 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsson in view of Barach and further in view of Choudhury and further in view of United States Patent No. 5,140,584 to Suzuki.

Claims 6, 7, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsson in view of Barach and further in view of Suzuki.

Claims 10-12 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsson in view of Barach, and further in view of Suzuki and further in view of Valencia.

Claims 16 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olsson in view of Barach and further in view of United States Patent 6,958,996 to Xiong.

Claims 1, 6, 11-12, 22, 27-28, and 33 are amended. Claims 10 and 26 are canceled without prejudice or disclaimer. Support for the amended claims can be found throughout the application. For example, among other places, support can be found at paragraphs [0017]-[0023] and with reference to the figures. No new matter has been added.

As discussed below, Applicants respectfully submit that the cited references do not disclose or fairly suggest each and every element as set forth in the pending claims. The cited references do not discuss processing of additional packets prior to establishing a requested protocol-based connection. In particular, the cited references fail to disclose assigning to a pass-through class additional packets associated with a request packet which are received prior to establishing a protocol-based connection. The cited references also fail to disclose or suggest that the additional packet is forwarded from the pass-through class even if a first maximum count of request packets has been reached. Reconsideration and allowance of all pending claims is respectfully requested.

Examiner Interview

On September 16, 2008, an interview with Examiner Ian Moore was conducted. During the interview the cited references were discussed. A proposed claim amendment was also discussed. Although no agreement was reached, Applicants wish to thank Examiner Moore for the interview and for his helpful remarks.

Objections / Rejections under Section 112

The word "operable" in claim 17 has been changed. Also, claims 1, 17, and 33 are amended to recite "a number of request packets" to clarify the claim language. Accordingly, withdrawal of the claim objections and the rejections under 35 U.S.C. 112 is respectfully requested.

Rejections under Section 103

A. Claim 1

Claim 1 recites a method for managing connections in a network. The method comprises "receiving a request packet for establishing a protocol-based connection; assigning the request packet to a selected one of a plurality of classes of request packets...forwarding the request packet if a number of request packets forwarded from the selected class in a predetermined time interval has not reached a first maximum count." The method further comprises "receiving an additional packet associated with the request packet prior to establishing the protocol-based connection; assigning the additional packet to a pass-through class if the request packet is forwarded; and forwarding the additional packet from the pass-through class even if the first maximum count or the second maximum limit has been reached."

The Office Action cites a combination of Olsson, Barach, and Valencia as teaching a pass-through class used in connection with request packets. See, Office Action at ¶¶11, 13. Applicants respectfully submit that the combination of these references does not disclose at least the limitations recited above.

Olsson discusses queuing packets based on time sensitivity such as whether the packets represent voice traffic or non-real time data. See, Olsson at col. 6, line 64 - col. 7, line 18. As acknowledged in the Office Action, Olsson does not disclose request packets. It therefore follows that Olsson also fails to disclose "additional packets" associated with request packets or that such additional packets are received prior to establishing a requested protocol-based connection. Olsson likewise fails to disclose or suggest a pass-through class to which additional packets are assigned and from which additional packets are forwarded even if a number of packets forwarded from the class of their associated request packets has reached a maximum count.

Barach does not cure Olsson's deficiencies. Although Barach does discuss control packets such as PADI and ICRQ packets, it does not disclose or suggest additional packets as claimed. In particular, Barach does not disclose or suggest that additional packets are associated with request packets, or that additional packets are received prior to establishing a requested

protocol-based connection and assigned to a pass-through class. Barach also fails to disclose or suggest that any packets (control or otherwise) are forwarded even if a maximum count has been reached.

Valencia fails to teach or suggest additional packets, a pass-through class, or forwarding from the pass-through class even if a class-based maximum count has been reached. Valencia's sequence numbers are cited in the Office Action as teaching forwarding even if a maximum count has been reached. Specifically, the Office Action points out that Valencia forwards management packets regardless of when they arrive in the sequence. See, Office Action at ¶¶11, 22.

However, as disclosed in the reference, sequence numbers do not represent a maximum number of packets which can be received in an interval of time. See, Valencia at col. 8, lines 44-48. Instead, sequence numbers are simply the product of a free-running counter and are used to reorder packets at a receiver and to discard packets that have been delayed longer than a specified interval. See, Valencia at col. 8, lines 38-42. Management packets (sequence=0) can arrive out-of-order and are not subject to the delay restriction. Valencia therefore fails to disclose that the sequence numbers are used to establish a maximum number of packets which can be forwarded in a particular interval, and similarly fails to disclose that some packets are forwarded even if a maximum count has been reached.

Accordingly, Applicants respectfully submit that Olsson in view of Barach and further in view of Valencia does not disclose or fairly suggest at least "receiving an additional packet associated with the request packet prior to establishing the requested protocol-based connection; assigning the additional packet to a pass-through class if the request packet is forwarded based on the first maximum count; and forwarding the additional packet from the pass-through class even if the first maximum count has been reached" as claimed. None of the other secondary references, disclose these limitations. In particular, Applicants respectfully submit that Achilles, Kroll, Choudhury, Kim, Suzuki, and Xiong do not cure the deficiencies of Olsson, Barach, and Valencia.

B. Claims 17, 33

Claims 17 and 33 each recite limitations similar to those discussed in connection with claim 1 and each is believed allowable over the cited references as previously discussed. For convenience, the relevant limitations are identified below.

Claim 17 recites an apparatus for managing connections in a network. The apparatus comprises a control plane and a data plane. The data plane is operative to "receive an additional packet associated with the request packet prior to establishing the protocol-based connection, assign the additional packet to a pass-through class if the request packet is forwarded based on the first maximum count; and forward the additional packet from the pass-through class even if the first maximum count has been reached." The cited references fail to disclose or fairly suggest at least the claimed data plane.

Claim 33 recites system for managing connections in a network comprising "means for receiving an additional packet associated with the request packet prior to establishing the protocol-based connection, means for assigning the additional packet to a pass-through class if the request packet is forwarded based on the first maximum count; and means for forwarding the additional packet from the pass-through class even if the first maximum count or the second maximum limit has been reached." The cited references fail to disclose or suggest at least these features.

C. Claims 2-16, 18-32

Claims 2-9 and 11-16 depend from claim 1; claims 18-25 and 26-32 depend from claim 17. Each dependent claim incorporates each and every limitation of its respective base claim and each is therefore believed allowable for at least the reason that it depends from an allowable base claim.

Applicants respectfully submit that claims 6-9 and 22-25 are allowable over the cited references based upon their further limitations. Specifically, claims 6 and 17 recite "wherein the request packet is forwarded only if a *count of active connection requests for which connections have not been established* has not reached a second maximum limit" (emphasis added). Claims 7-9 and 23-25 further restrict the count of active connection requests. The cited

references fail to disclose a count of active connection requests for which connections have not been established.

In particular, it is respectfully submitted that neither Choudhury nor Suzuki discloses "active" connection requests as those for which connections have not been established. As cited in the Office Action, Choudhury discussed borrowing buffer space to prevent underutilization of resources in a fair-queuing scheme. See, Office Action at ¶10 (citing Choudhury at col. 4, lines 1-15). There is no teaching or suggestion of a count of active connection requests for which connections have not been established.

Suzuki likewise fails to teach or suggest a count of active connection requests as claimed. In the relevant portion, Suzuki discusses using thresholds for prioritizing packets. See, Office Action at ¶12 (citing Suzuki at col. 4, lines 25-64). Suzuki does not mention a count of active connection requests for which connections have not been established. Accordingly, it is respectfully submitted that the further limitations of claims 6-9 and 22-25 provide an additional basis for patentability.

Claims 11-12 and 27-28 include limitations relating to the additional packet. For example, claim 11 recites "wherein the additional packet relates to status of the requested protocol-based connection." Claim 12 recites "wherein the additional packet relates to termination of the requested protocol-based connection." As previously discussed, the cited references do not disclose or fairly suggest additional packets as claimed. It is respectfully submitted that claims 11-12 and 27-28 are patentable over the cited references based upon their further limitations.

CONCLUSION

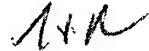
In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

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Amdt. dated October 20, 2008
Reply to Office Action of May 21, 2008

PATENT

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 858-350-6100.

Respectfully submitted,



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